

ANTIMICROBIAL RESISTANCE

Information is available from several sources on the growing problem of microbial resistance to antibiotics and other drugs prescribed to treat bacterial infections.

Infections with resistant organisms result in treatment failures, higher health care costs and mortality from infections previously treatable with antibiotics. The most effective way to control resistance is to decrease inappropriate antibiotic use, however controlling the spread of resistant organisms through effective infection control practices is of also of the highest priority.

The increasing prevalence of antimicrobial-resistant organisms has been of particular concern in hospitals where intensity of antibiotic use correlates with rapid development of resistance, but community acquired infection with resistant organisms is occurring with increasing frequency.

The pathogens that have received the most attention to date include methicillin-resistant *Staphylococcus aureus* (MRSA), also described as oxacillin-resistant *Staphylococcus aureus* (ORSA); vancomycin-resistant *Enterococcus* (VRE); and drug-resistant *Streptococcus pneumoniae* (DRSP). Although infections with these agents are not notifiable in Washington, public health surveillance is carried out to identify trends of resistance in our communities, to recognize emerging patterns, and to promote appropriate use of antibiotics by providing information to clinicians.

Other organisms with emerging resistance being monitored closely include *S. aureus* with reduced susceptibility to vancomycin (VISA/GISA), *S. aureus* resistant to vancomycin (VRSA/GRSA), and multidrug-resistant *Salmonella*. Also of concern is emerging resistance to fluoroquinolones (e.g., ciprofloxacin) by a variety of bacteria, including *P. aeruginosa*, *E. coli* and *Campylobacter*.

For more information on antibiotic resistance surveillance in Washington, contact DOH Communicable Disease Epidemiology.

Resources are listed below, which provide more information on prevalence of antimicrobial resistant organisms, health education for appropriate use of antibiotics, and infection control recommendations.

CDC websites on Antimicrobial Resistance

www.cdc.gov/drugresistance

www.cdc.gov/narms

www.cdc.gov/ncidod/hip/SURVEILL/NNIS.HTM

Washington State DOH antimicrobial resistance website

www.doh.wa.gov/topics/antibiotics.htm

Alliance for the Prudent Use of Antibiotics

www.healthsci.tufts.edu/apua

Other resources:

Controlling Antibiotic Resistance: A Practical Guide for Health Care Providers, Schools, Residential & Correctional Facilities, Dentists & Veterinarians

Available from

Antibiotic Resistance Program
Tacoma-Pierce County Health Department
Download: www.tpchd.org/antibiotic
Telephone: 253-798-6410